

REMARKS

Claims 1 has been canceled and claim 4 has been newly added to clarify the scope of the invention. Claim 3 has been amended to overcome 112 rejection. Claims 5 and 6 have been newly added as dependent claims to claim 4.

Reconsideration of the application is respectfully requested for the following reasons:

Rejection of claims 1-3 under 35 U.S.C. 103(a) as being unpatentable over Fontenot (US 2002/0182102) in view of Nishida (US Patent 5,897,673) is respectfully traversed.

Applicant wishes to direct the Examiner's attention to the basic requirements of a prima facie case of obviousness as set forth in the MPEP §2143. This section states that to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Section 2143.03 states that all claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 USC 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5USPQ2d 1596 (Fed. Cir. 1988).

By way of review, the present invention, as defined in the newly added claim 4, is directed to a refrigerator having an inner card containing nanosilver particles. The refrigerator also includes an outer case and a heat insulating material between each case. The inner case includes an inner layer (first layer) for defining an inner space of the refrigerator and an outer layer (second layer), the nanosilver particles being confined in the first layer. As described above, by limiting application of the nanosilver particles to the first layer, the amount of the nanosilver particles needed in the refrigerator is considerably reduced, thereby entailing a significant reduction in cost. Further, concentration of the nanosilver particles added to the first layer is limited to a range of about 1 – 500 ppm by weight of the first layer such that the expensive nanosilver can be efficiently used while maintaining a target antibacterial ability.

In contrast, the liner in Fontenot teaches a container liner such as a refrigerator liner. That is, Fontenot teaches a new addition to the existing structure (refrigerator) and with the container liner being divided into a spill absorbing layer and a liquid-impervious layer for the purpose of absorbing the spilled liquids while preventing it from adversely affecting other parts of the refrigerator.

Applicant may have misunderstood the Office Action but it seems like the Examiner is arguing that the container liner in Fontenot is equivalent to the inner case of the present invention. With all due respect, however, this analysis is technically inaccurate since the inner case of the present invention, which exhibits a supportive function as an inside wall, can never be deemed equivalent to an external liner. Moreover, the inner case is impervious to liquid in contrast to that in Fontenot which requires an absorbent layer.

If the Examiner is arguing instead that the liner corresponds to the first layer of the present invention, it must be pointed out that while the liner has a double layered structure: absorbent and impervious layers. This is in contrast to the first layer of the present invention which is a single impervious layer.

Further, Fontenot is totally silent on the use of the nanosilver particles. Accordingly, it is absolutely clear that Fontenot fails to teach removal of the nanosilver particles from the second layer of the inner case for the purpose of obviating those problems of the prior art such as a high cost in producing the refrigerator having nanosilver.

Nishida is directed to providing fine silver particles-containing fibers which can be produced with ease at low costs for use as non-woven fabric, woven fabric, knitted fabric and paper (see column 22, lines 23 – 56). The usages of fibers in Nishida exemplify filters, clothing, bedding, masks, shorts, tissue, car seats, toilet covers and linings for refrigerator and trash cans (see column 22, line 58 – column 23, line 6). In contrast, the first layer in the present invention is naturally a solid material as opposed to flabby textile fibers such as that disclosed in Nishida. Let this be a reminder that the only reason for dividing the inner case (inside wall of the

refrigerator) of the present invention into two layers is to provide an inexpensive refrigerator by confining nanosilver concentration to the first layer and, otherwise, both the first and second layer are basically the same material.

Furthermore, Examiner's hindsight combination of Fontenot and Nishida is believed entirely improper in the absence of any suggestion, teaching or motivation given in any of the prior art references to do so, and in as much as one skilled in the art would have no reason to make such combination. In the present invention, the key inventive concept lies in that it remedies the high cost in producing the same while that in Fontenot is to provide an absorbent liner. As the inventive concepts are completely different, one of ordinary skill in the art would have no reason to make such combination.

Even assuming, for argument's sake, that such combination were proper, such combination still cannot render the present invention obvious because structure in Fontenot would remain unchanged and the difference between such combination and the present invention cannot be cured simply because the absorbent layer is provided with the nanosilver particles.

Accordingly, it is respectfully submitted that the newly added claim 4 defines a patentable invention over the prior art references, including Nishida and Fontenot. It is also believed that claims 2, 3, 5 and 6, indirectly or directly depending on claim 4, are allowable for the same reasons indicated with respect to the newly added claim 4.

**CONCLUSION**

Applicant believes that this is a full and complete response to the Office Action. For the reasons discussed above, applicant now respectfully submits that all of the pending claims are in complete condition for allowance. Accordingly, it is respectfully requested that the Examiner's rejections be withdrawn; and that claims 2-6 be allowed in their present form.

Should the Examiner require or consider it advisable that the specification, claims an/or drawings be further amended or corrected in formal respects, in order to place the case in condition for final allowance, then it is respectfully requested that